

AMERICA'S FIRST CHOICE

TRAVIS TEAM



MIDAIR COLLISION AVOIDANCE



TRAVIS AFB, CA



DEPARTMENT OF THE AIR FORCE
HEADQUARTERS 60TH AIR MOBILITY WING (AMC)

NOTES

MEMORANDUM FOR ALL PILOTS

FROM: 60th Air Mobility Wing (AMW)

SUBJECT: Midair Collision Avoidance Program (MACA)

1. The Midair Collision Avoidance Program (MACA) was developed in the interest of promoting flight safety. Its primary purpose is to inform pilots of the midair collision potential between military and civilian aircraft in the vicinity of Travis AFB. This pamphlet details the types of aircraft stationed at Travis, contains a brief synopsis of their characteristics, and depicts frequently utilized arrival and departure routes that should assist you in avoiding congested areas where the potential for midair collisions increase.

2. Travis AFB is the largest wing in Air Mobility Command (AMC). It operates and maintains 37 C-5 A/B, 27 KC-10A, and four E-6 aircraft. As the west coast hub for Air Mobility Command, KC-135, C-17, C-130, and C-141 aircraft also frequently utilize the base. Occasionally, fighter type aircraft such as the F-15, F-16, F-18, or T-38 can be seen flying in the Travis patterns.

3. Travis RADAR Approach Control (RAPCON) handles 250,000 annual operations and is an important part of the Northern California Air Traffic System. In addition to our military mission, we provide approach control service to Buchanan Field (Concord), Nut Tree (Vacaville), Watts/Woodland, Davis, and Yolo County airports and RADAR flight following to VFR flights transiting our airspace. Eighty percent of the RAPCON's annual traffic count is civilian general aviation.

4. If you would like a tour of the facilities or have any comments about this booklet, please contact anyone on the Midair Collision Avoidance Team at (707) 424-3810 or the 60th Air Mobility Wing Flight Safety Office at (707) 424-5437. Thank-you.

A handwritten signature in black ink that reads "Thomas P. Kane".

THOMAS P. KANE

Brigadier General, USAF

Commander, 60th Air Mobility Wing (AMC)

YOLO COUNTY JUMP ZONE



SKYDIVING AT YOLO COUNTY AIRPORT

Skydiving operations take place from sunrise to sunset year around, weather permitting. Occasional night jumping takes place during a full moon with skydivers wearing lights visible for at least three miles.

A typical jump begins with a free fall from 13,000 feet for one minute. Canopy openings are between 5,000 and 2,000 feet. Canopy descent takes two to five minutes with landing EAST of the taxiway and main airport road or the NORTHEAST corner of the airport.

For noise abatement, Yolo County Airport’s traffic pattern is restricted to west patterns only (left traffic for rwy 16 and right traffic for rwy 34). Since the landing zone is on the EAST and NORTHEAST side of the airport, potential conflict between aircraft and jumpers is minimized.

The primary jump aircraft are a Cessna 206 Caravan and a Cessna 182 Skylane. The Cessna 206 is capable of rapid and steep descents.

Jump aircraft are normally in contact with TRAVIS APPROACH for traffic advisories when climbing to 13,000 and in their initial descent back to Yolo County. They give a one minute warning prior to releasing jumpers. Workload permitting, TRAVIS APPROACH will provide other transiting VFR aircraft updates on skydiving activity and assistance in navigating around the area if required.

For further information about skydiving at Yolo County Airport, contact Sky Dance Skydiving at 1-800-752-3262.

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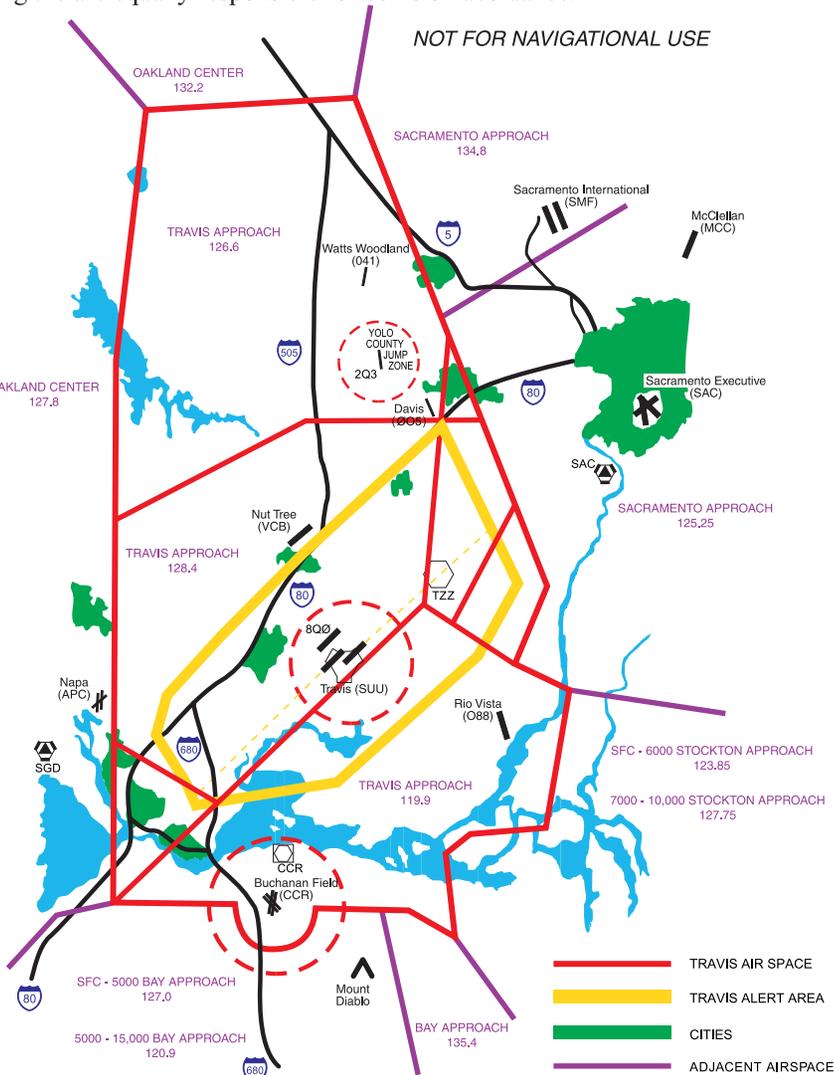
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TRAVIS AIRSPACE AND ALERT AREA 682

ALERT AREA (from Airman Information’s Manual) – “Airspace which may contain a high volume of pilot training activities or an unusual type of aerial activity, neither of which is hazardous to aircraft. Alert Areas are depicted on aeronautical charts for the information of nonparticipating pilots. All activities within an Alert Area are conducted in accordance with Federal Aviation Regulations, and pilots of participating aircraft as well as pilots transiting the are equally responsible for collision avoidance.”

WAKE TURBULENCE

Aircraft operating within Travis’ airspace should use **extreme caution**. Wake turbulence is an unpredictable phenomenon and its existence cannot be anticipated. It can be encountered by airborne aircraft as well as aircraft on the ground.

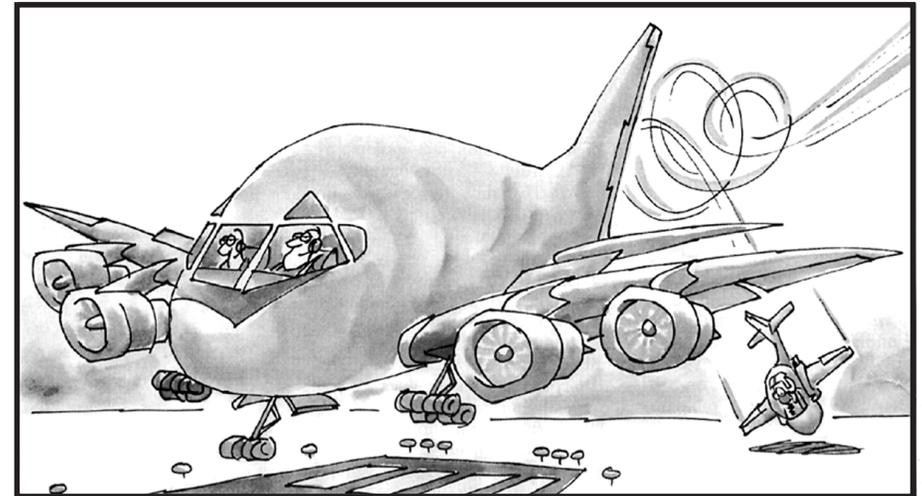


ALERT AREA 682 ACTIVE TIMES

MONDAY – FRIDAY (EXCLUDING HOLIDAYS), 1600Z – 0500Z

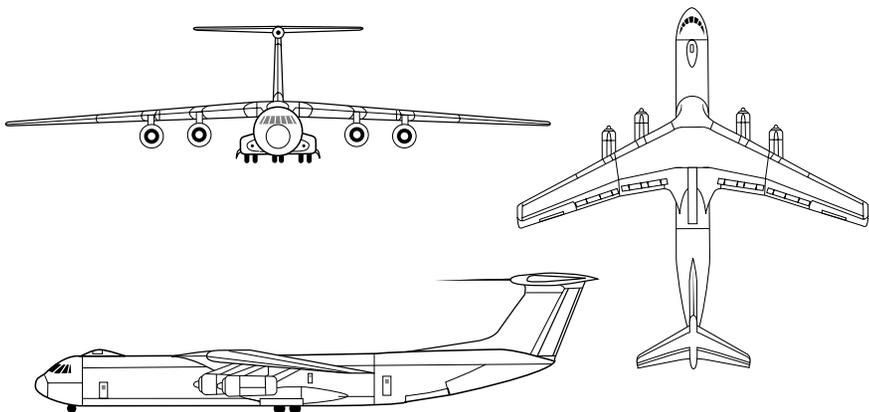
NORTH OF DASHED LINE: SURFACE TO 6000 MSL

SOUTH OF DASHED LINE: SURFACE TO 3000 MSL



Their wake, your funeral

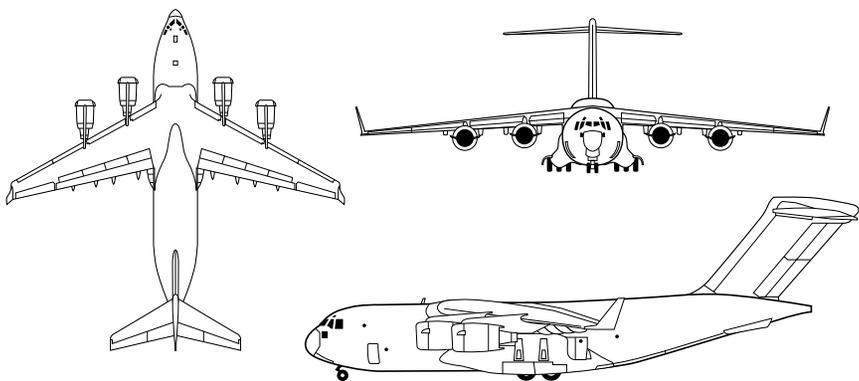
TRANSIENT AIRCRAFT



C-141 STARLIFTER

Final approach speed : 130 kts.

Radar pattern speed : 200 kts.



C-17 GLOBEMASTER

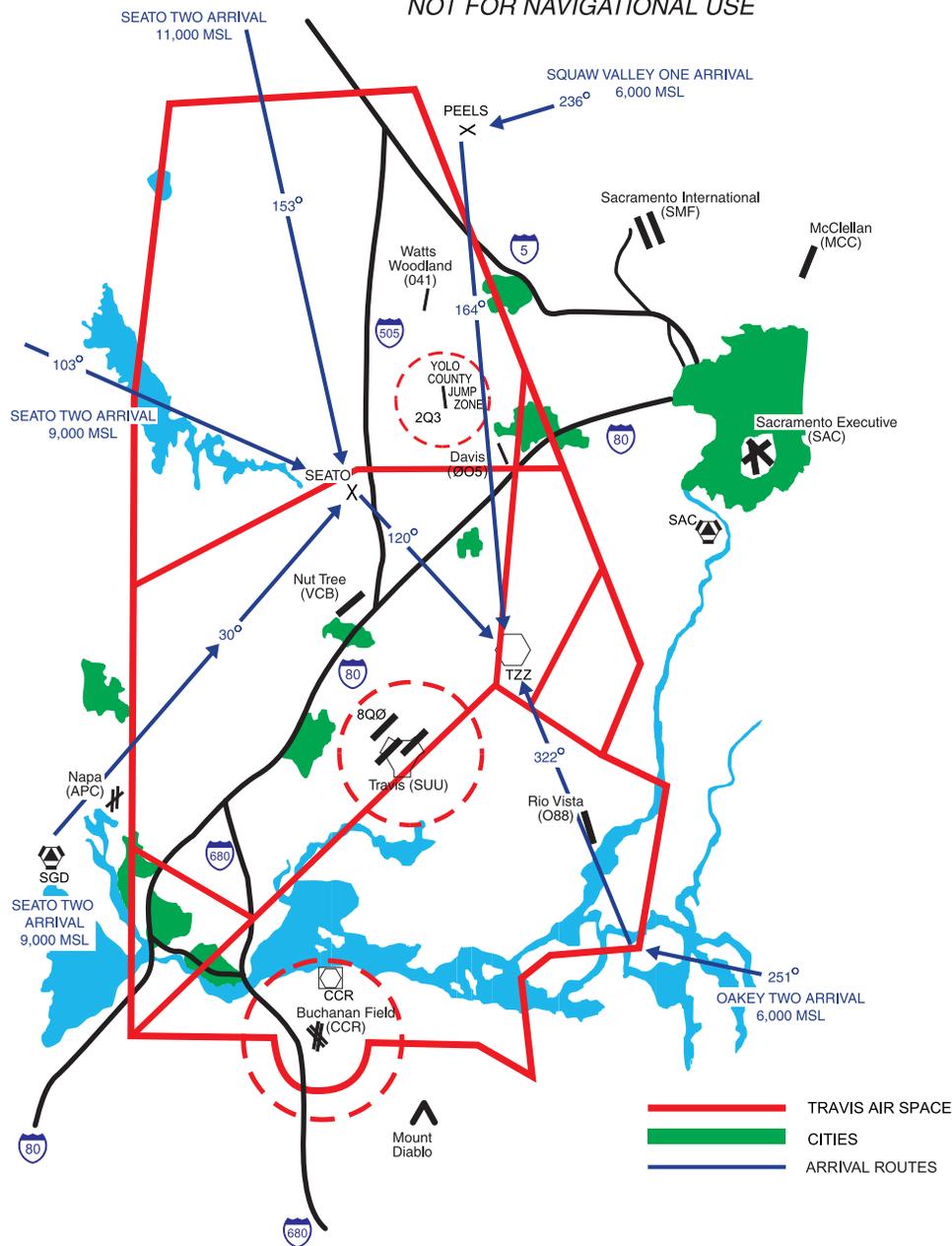
Final approach speed : 105 - 135 kts.

Radar patternspeed : 220 kts..

CAUTION WAKE TURBULENCE
HEAVY JET

ARRIVAL ROUTES

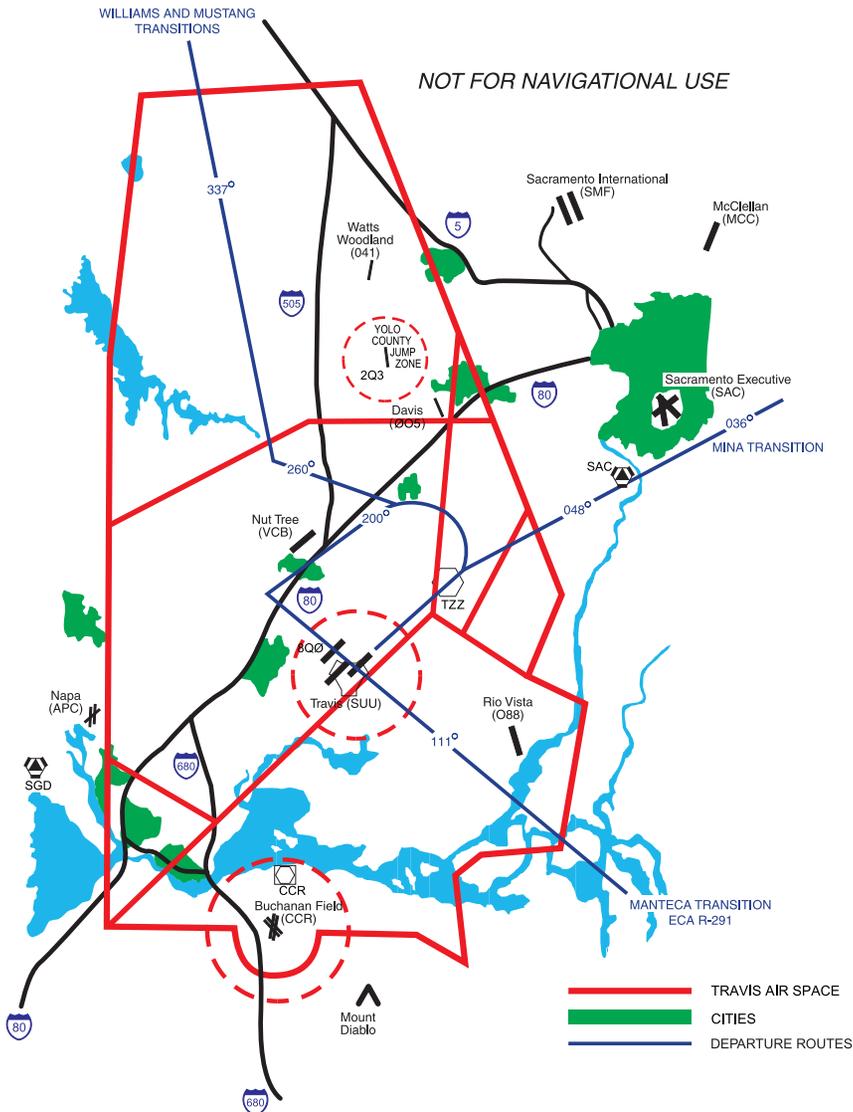
NOT FOR NAVIGATIONAL USE



The depicted altitudes are extracted from Letters of Agreement between Travis Approach and adjacent air traffic control facilities. Once within the lateral boundaries of Travis airspaces, aircraft are radar vectored toward the runway in use and descended to 5000 MSL or lower.

RUNWAY 03 DEPARTURE ROUTES

TRAVS ONE DEPARTURE

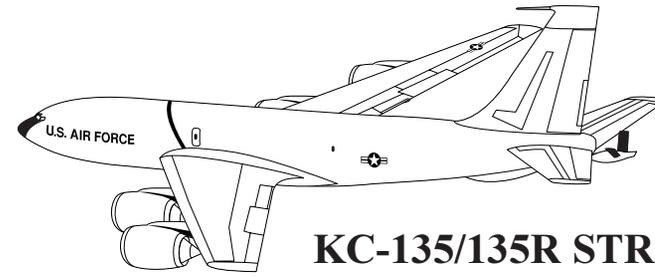


Aircraft are initially assigned 6000 MSL. Departure control (126.6) will climb the aircraft to 10,000 MSL traffic permitting and initiate a radar handoff to Oakland Center.

Cell departures (flights of up to four KC-10 aircraft) are common. The flights will be assigned a block altitude (normally 5000 to 6000 feet) and depart in one minute intervals. The lead aircraft will fly the Williams Transition as published. Wingmen will abandon the published route and turn direct towards the flight lead as soon as practical.

The gross weight of our aircraft restricts their climb rate. On occasion, it may be 30 flying miles or more before they reach 10,000 MSL in their climb to flight levels.

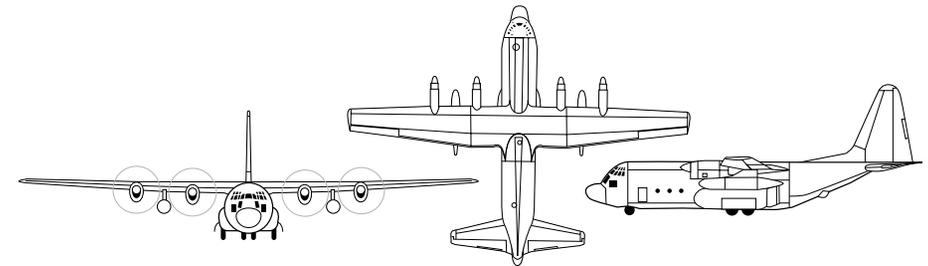
TRANSIENT AIRCRAFT



KC-135/135R STRATOTANKER

Final approach speed : 125-135 kts.

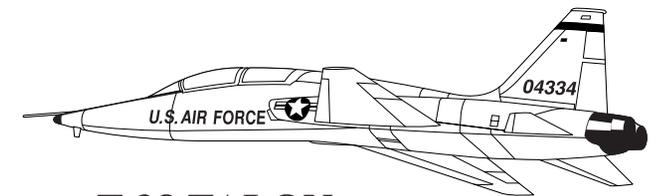
Radar pattern speed : 180 kts.



C-130 HERCULES

Final approach speed : 140-150 kts.

Radar pattern speed : 150-170 kts.



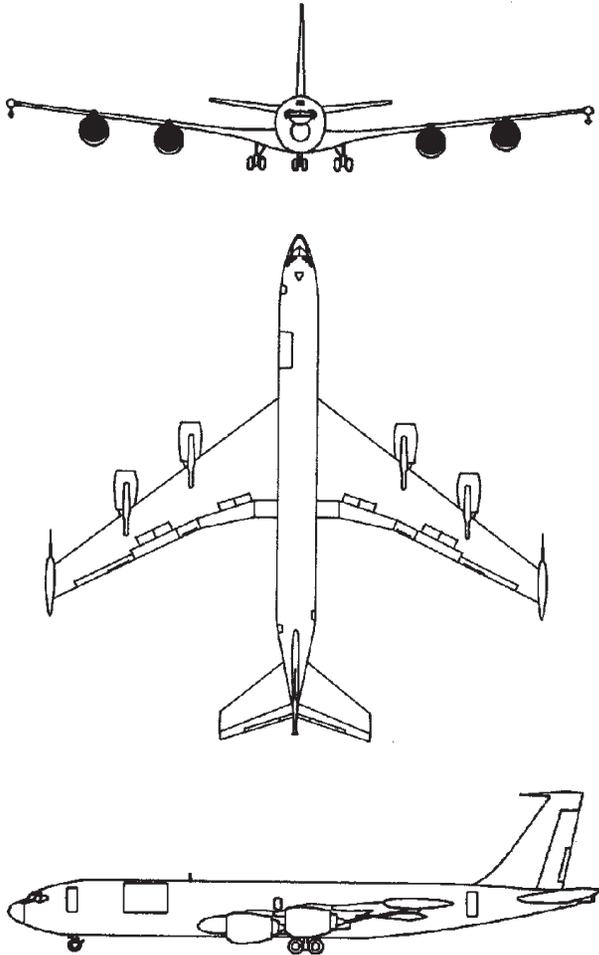
T-38 TALON

Final approach speed : 155-185 kts.

Radar pattern speed : 250-300 kts.

CAUTION WAKE TURBULENCE

E-6 MERCURY

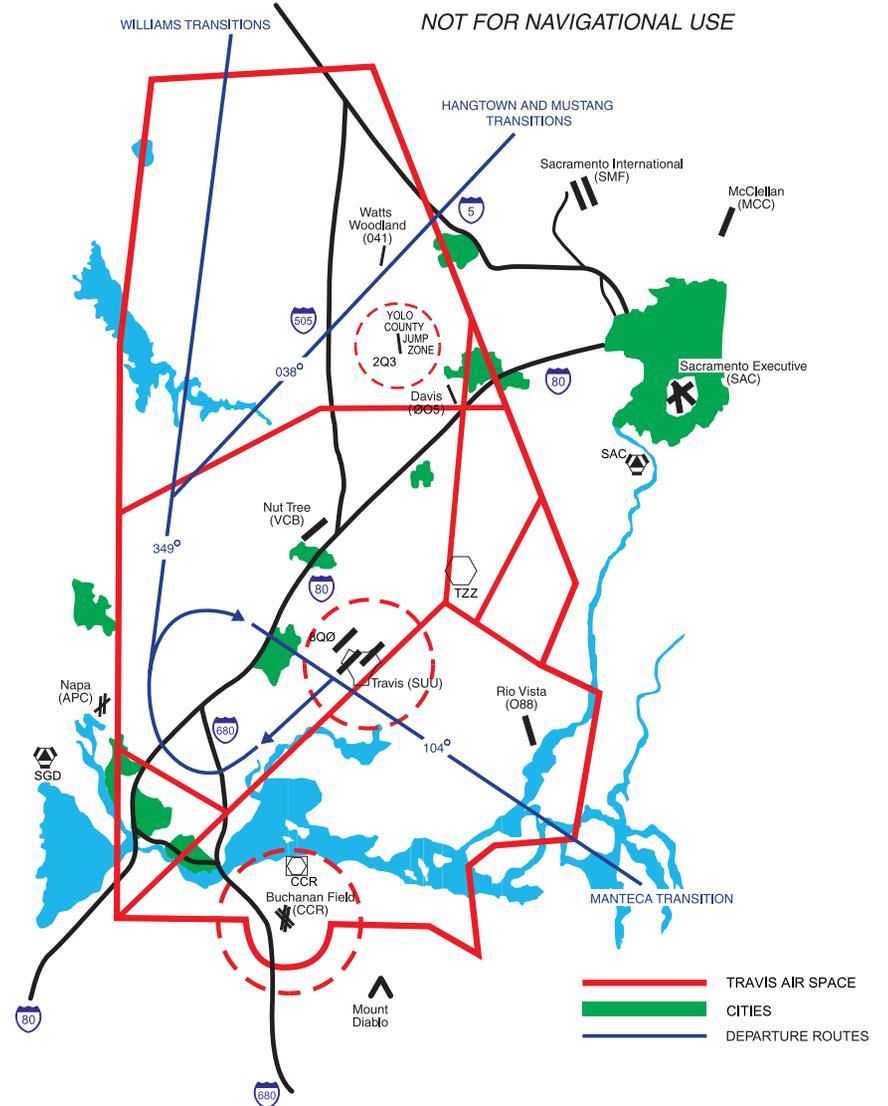


Final approach speed : 130 kts. (estimated)
 Radar pattern speed : 200 kts. (estimated)
 Gross wt. : 342,000 lbs.

CAUTION WAKE TURBULENCE
HEAVY JET

RUNWAY 21 DEPARTURE ROUTES

TEALL ONE DEPARTURE

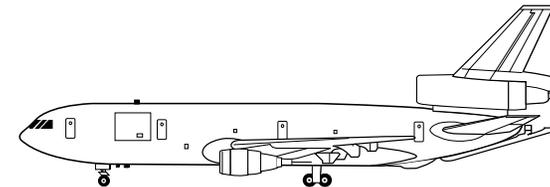
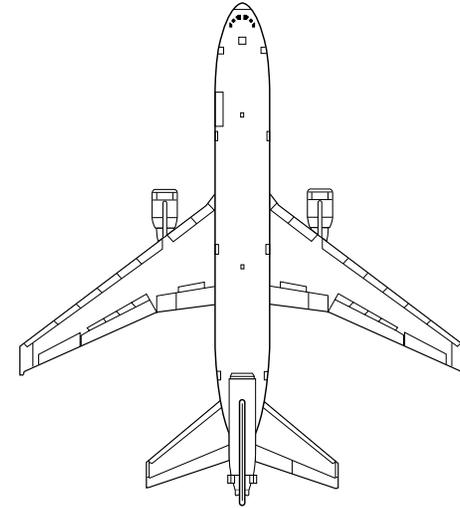


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Cell departures (flights of up to four KC-10 aircraft) are common. The flights will be assigned a block altitude (normally 5000 to 6000 feet) and depart in one minute intervals. The lead aircraft will fly the Williams Transition as published. Wingmen will abandon the published route and turn direct towards the flight lead as soon as practical.

The gross weight of our aircraft restricts their climb rate. On occasion, it may be 30 flying miles or more before they reach 10,000 MSL in their climb to flight levels.

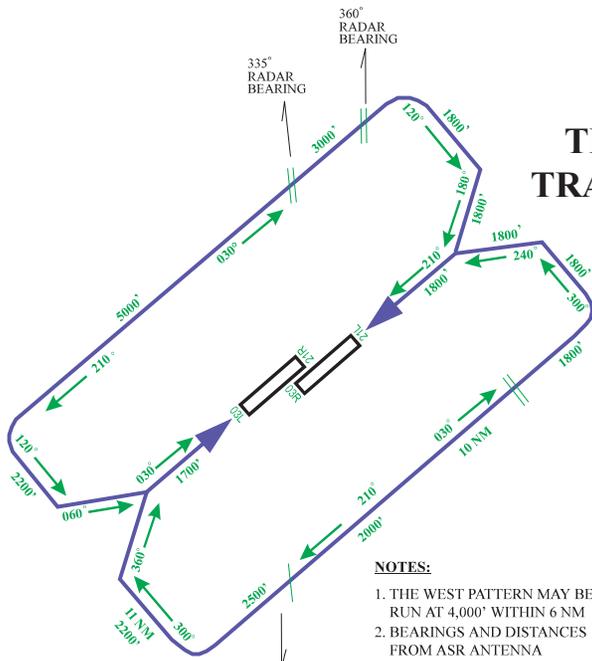
KC-10 EXTENDER



Final approach speed : 150 kts.
 Radar pattern speed : 210 kts.
 Gross wt. : 590,000 lbs.

CAUTION WAKE TURBULENCE
HEAVY JET

TRAVIS RADAR TRAFFIC PATTERN



NOT DRAWN TO SCALE

NOTES:

1. THE WEST PATTERN MAY BE RUN AT 4,000' WITHIN 6 NM
2. BEARINGS AND DISTANCES FROM ASR ANTENNA

GLIDEPATH INTERCEPT ALTITUDES

RUNWAY 03L

ILS --- 1700'
 ASR -- 1700'

RUNWAY 21L

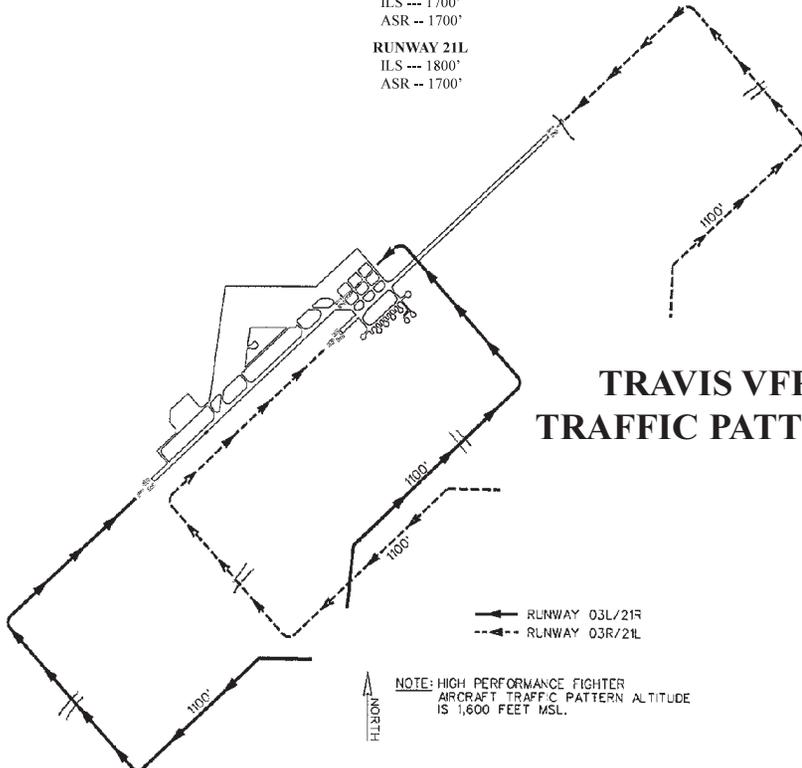
ILS --- 1800'
 ASR -- 1700'

180°
 RADAR
 BEARING

335°
 RADAR
 BEARING

360°
 RADAR
 BEARING

TRAVIS VFR TRAFFIC PATTERN

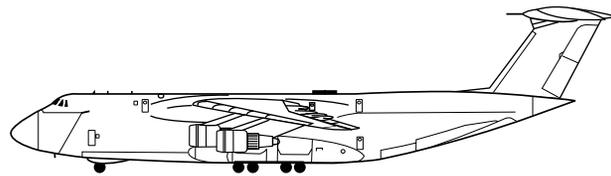
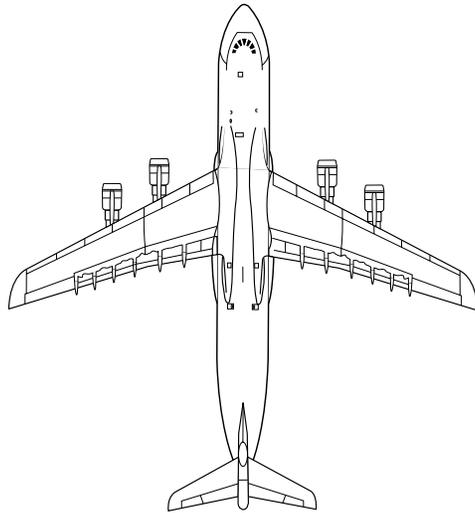
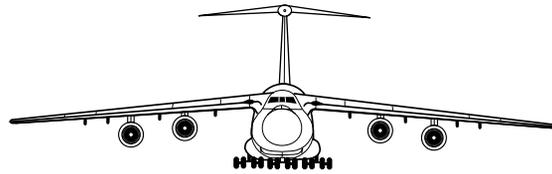


— RUNWAY 03L/21R
 - - - RUNWAY 03R/21L

NOTE: HIGH PERFORMANCE FIGHTER
 AIRCRAFT TRAFFIC PATTERN ALTITUDE
 IS 1,600 FEET MSL.



C-5 GALAXY



Final approach speed : 125 kts.
Radar pattern speed : 210 kts.
Gross wt. : 769,000 lbs.

CAUTION WAKE TURBULENCE
HEAVY JET

TRAVIS OVERHEAD TRAFFIC PATTERN

